

# セラフィールドサイト 福島漁業への情報：海の汚染度と被ばく量の減少度

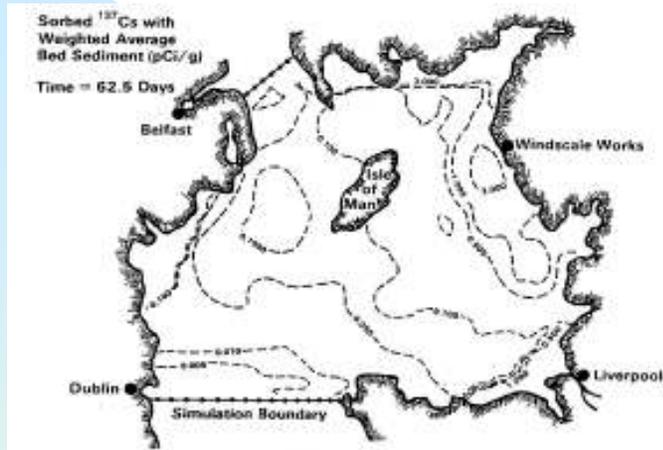
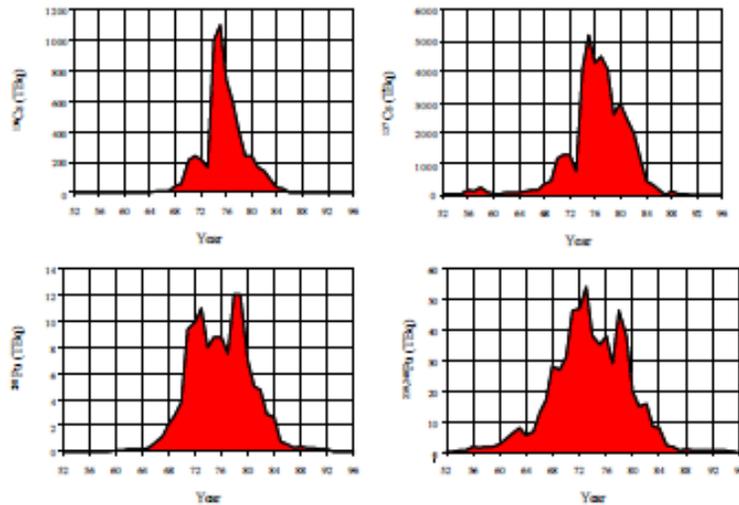


Figure 9. Computed  $^{137}\text{Cs}$  Concentrations Sorbed by Bulk Sediments in Top 10 cm Bed



134,137Cs  
Discharge

238,239,240Pu  
Discharge

## 大西のFETRAモデル

### ◆ 1952～1998：放射能廃液アイルランドの海への放出

○  $^{134,137}\text{Cs}$  releases:  $4.9 \times 10^{16}$  Bq (福島事故の1.5倍)

○  $^3\text{H}$ :  $3.7 \times 10^{14}$  Bq

○ Pu:  $2.2 \times 10^{16}$  Bq (ほとんどが今もアイルランドの海底に存在)

○ 現在海中のCsとPuのほとんどは海底からの脱着によるもの

■ 最大被ばく量(1970年代～1980年代)は魚の消費により年間3mSv

○ 現在は魚の消費により年間1.7 $\mu$ Sv

### ◆ 1952：原子炉の黒鉛の火事 (主に牛乳の汚染)

○  $^{131}\text{I}$ と $^{137}\text{Cs}$ が大気へ放出 ( $7.4 \times 10^{14}$  Bq)

○ 主要な被ばく経路はミルク (0.05 Bq/L)。

# Yasuo Onishi's FETRA モデルの浮遊土の濃度予測

With Onishi's 2-D FETRA Code

sand



Figure 4. Computed Sand Concentrations in Water Column

Silt

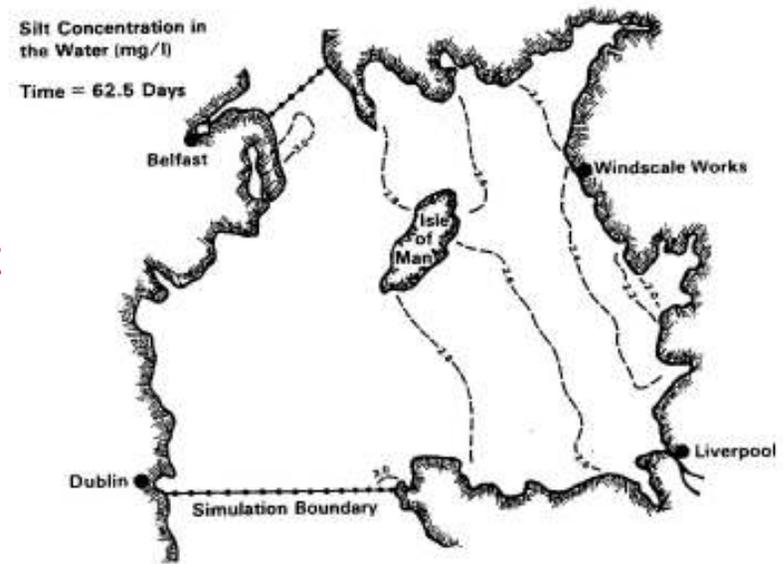


Figure 5. Computed Silt Concentrations in Water Column

Clay



Figure 6. Computed Clay Concentrations in Water Column

# Predicted $^{137}\text{Cs}$ in Water and Sea Bed

Dissolved  
 $^{137}\text{Cs}$  in  
Water

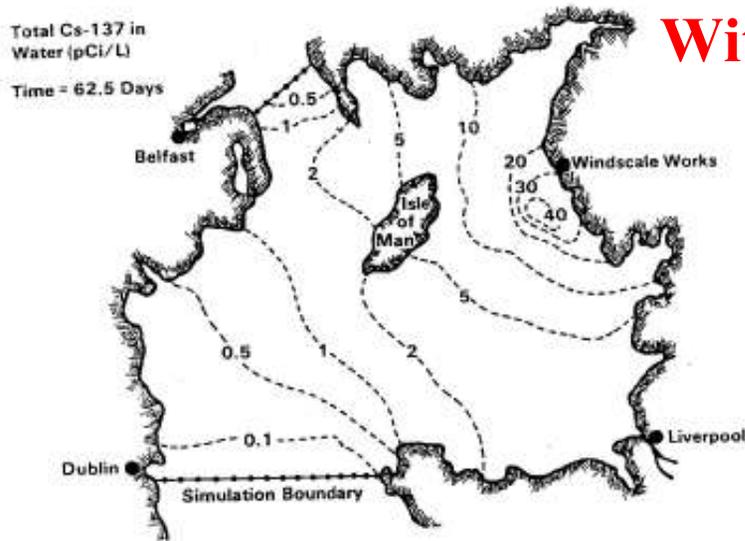


Figure 7. Computed Dissolved  $^{137}\text{Cs}$  Concentrations

With Onishi's 2-D FETRA Code

$^{137}\text{Cs}$  in Seabed

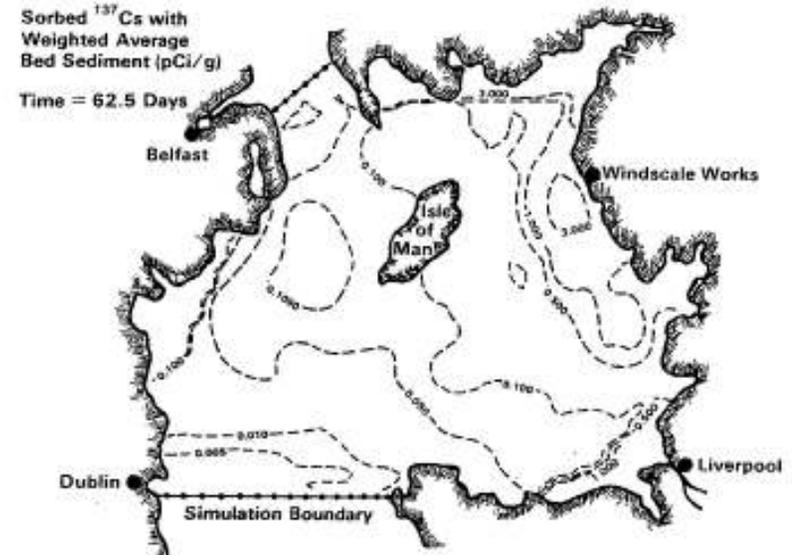


Figure 9. Computed  $^{137}\text{Cs}$  Concentrations Sorbed by Bulk Bulk Bed Sediments in Top 10 cm Bed

Sorbed  
 $^{137}\text{Cs}$  in  
Water

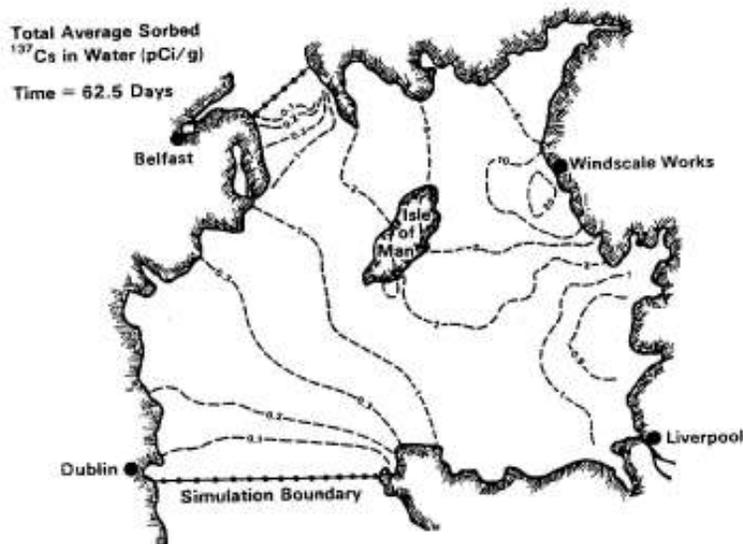


Figure 8. Computed  $^{137}\text{Cs}$  Concentrations Sorbed by Bulk Suspended Sediment